

**WHAT IS CLAIMED IS:**

- 1.** A continuous ink jet printer comprising:
  - a plurality of ink sources;
  - a print head fluidly connected to multiple ink sources; and
  - apparatus adapted to selectively transfer ink from each of the connected ink source to the print head or block such transfer.
- 2.** A continuous ink jet printer for delivering droplets of ink; the printer comprising:
  - a print head having a manifold;
  - a nozzle opening associated with the manifold through which opening ink droplets are delivered from the manifold;
  - a plurality of sources of liquid ink, each source containing liquid ink of a different optical characteristic; and
  - a flow controller selectively communicating the sources of liquid ink with the manifold, whereby ink droplets of selectable optical characteristic are prepared in the manifold for delivery from the nozzle opening.
- 3.** A continuous ink jet printer as set forth in Claim 2, wherein the plurality of sources contain inks of different colors, whereby ink droplets of selectable color are prepared in the manifold for delivery from the nozzle opening.
- 4.** A continuous ink jet printer as set forth in Claim 2, wherein the plurality of sources contain inks of different density, whereby ink droplets of selectable density are prepared in the manifold for delivery from the nozzle opening.
- 5.** A continuous ink jet printer as set forth in Claim 2, wherein the flow controller comprises a pressurized source and a valve.
- 6.** A continuous ink jet printer as set forth in Claim 2, wherein the flow controller comprises a pump.

7. A continuous ink jet printer as set forth in Claim 2, wherein:  
one of the plurality of sources of liquid ink contains colorless liquid ink  
communicating with the manifold; and

the flow controller is further adapted to meter colorless ink into the  
manifold after a droplet is delivered from the nozzle opening to thereby dilute  
color ink remaining in the manifold sufficiently such that a next desired optical  
characteristic can be attained by adding ink of appropriate optical characteristic to  
the manifold.

8. A continuous ink jet printer as set forth in Claim 7, wherein the  
plurality of sources contain inks of different colors, whereby ink droplets of  
selectable color are prepared in the manifold for delivery from the nozzle opening.

9. A continuous ink jet printer as set forth in Claim 7, wherein the  
plurality of sources contain inks of different density, whereby ink droplets of  
selectable density are prepared in the manifold for delivery from the nozzle  
opening.